



ABSTRACT

A free-cutting tool steel is provided containing Fe and C in an amount of 0.1 to 2.5 wt%, Ti and or Zr where $W_{Ti} + 0.52W_{Zr}$ constitutes 0.03 to 3.5 wt%, and W_{Ti} represents Ti content and W_{Zr} represents Zr content, at least any one of S, Se and Te where $W_S + 0.4W_{Se} + 0.25W_{Te}$ constitutes 0.01 to 1.0 wt%, and $(W_{Ti} + 0.52W_{Zr})/(W_S + 0.4W_{Se} + 0.25W_{Te})$ constitutes 1 to 4, and W_S represents S content, W_{Se} represents Se content and W_{Te} represents Te content; and dispersed therein a texture thereof from 0.1 to 10% in terms of area ratio in a section of a machinability improving compound phase of a metallic element component of Ti and/or Zr as major components, and a binding component for the metallic element component containing C and any one of S, Se and Te.

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